What is claimed is:

1. A method for restraining deformation of a nip roll, which is used to restrain deformation of first and second nip rolls which nip a sheet material, wherein

the diameter ratio between said first and second nip rolls is set at a value different from 1.

2. The method for restraining deformation of a nip roll according to claim 1, wherein the diameter ratio between said first and second nip rolls is set so that when the number of polygon sides of polygonal deformation of said first nip roll, which is defined by the ratio of the frequency of a vibration system including said rolls to the rotational speed of said first nip roll, is an integer N_1, the number of polygon sides of said second nip roll, which is defined by the ratio of the frequency of said vibration system to the rotational speed of said second nip roll, has the following value:

$$N_1 \pm j + a$$

Where, $j = 0, 1, 2, 3, \ldots$

$0 < a < 1$

3. The method for restraining deformation of a nip roll according to claim 2, wherein said constant a is set at 0.1 to 0.9.

4. The method for restraining deformation of a nip roll according to claim 2, wherein said constant a is set at

0.5.

5. The method for restraining deformation of a nip roll according to any one of claims 1 to 4, wherein said first and second nip rolls are nip rolls provided in a paper-making machine or a printing machine.